



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,908	12/08/2003	Toshio Maruyama	A-9993	9304
181	7590	12/13/2005		
MILES & STOCKBRIDGE PC 1751 PINNACLE DRIVE SUITE 500 MCLEAN, VA 22102-3833			EXAMINER MITCHELL, KATHERINE W	
			ART UNIT	PAPER NUMBER
			3677	

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/728,908

Applicant(s)

MARUYAMA ET AL.

Examiner

Katherine W. Mitchell

Art Unit

3677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-13 is/are pending in the application.
- 4a) Of the above claim(s) 2 and 8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 4 and 6-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date. 20051117.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 3 are objected to because of the following informalities: Applicant has the pawls "extending radially inward from a position near the first end of the shank".

Looking at pawls 15, especially in Figs 5-8, examiner is not sure how applicant is using "from a position near the first end of the shank", as it appears to examiner they extend **from** the 2nd end inwardly toward the 1st end. Examiner assumes Appropriate correction is required.

2. Claims 7-13 have the flange at the 2nd end of the tubular shank and the holding piece arms at the first end of the tubular shank. The specification, claims 1-4 and 5-6, and the abstract have the flange extending from the 2nd end of the tubular shank. While claim 7 is independent, there must be consistency of nomenclature between the specification and the claims and the drawings, and what is called the first end must remain the first end throughout for clarity. Examiner has considered the flange at the 2nd end as per the specification, for clarity.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

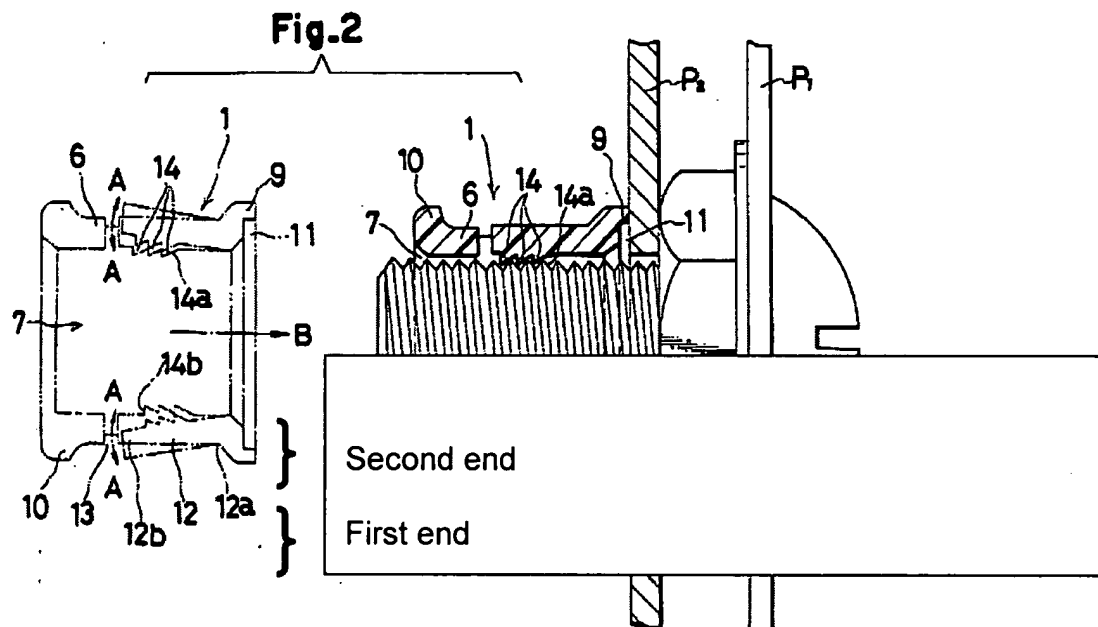
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1,3,4 6, are rejected under 35 U.S.C. 102(b) as being anticipated by Mizusawa USP 4435111.

Mizusawa teaches a fastener adapted to be attached to a sheet-shaped member, so that the sheet-shaped member can be attached to a mounting member via the fastener, the fastener comprising:

a tubular shank (1) **adapted to be inserted** (although Mizusawa does not insert into a mounting hole, it is capable of being inserted into some mounting hole) into a mounting hole of the sheet-shaped member;



a plurality of spaced holding piece arms (10, plurality is the plurality of projections at the hexagonal corners best seen in Fig 4), extending radially outward from a corresponding partial portion of the periphery of a first end (1st end is left in Fig above, near "10", 2nd end is at right, near "9") of the shank and "10" extends substantially in the same plane as the first end; a flange (9) extending outward from a second end of the shank, and {capable of} having an outer cross-dimension greater than an inner cross-dimension of the mounting hole of the sheet-shaped member; and

at least one stud-engagement pawl (14, pivotable about 12a) extending into the interior of the shank, wherein the shank {is capable of} has a length less than that of a stem of a stud fixed to a mounting member with which the fastener is to be engaged, so that the stud stem protrudes from a first surface of the sheet-shaped member after the shank is inserted into the mounting hole, with the holding piece leading, until the holding piece is adjacent to the first surface and the flange is adjacent to an opposite second surface of the sheet-shaped member, and the stud is passed through the shank and the pawl is engaged with the stud, and wherein protrusion of the stud stem allows an auxiliary member to be mounted thereto (inherently capable of this function – no structure positively recited).

Re claim 3. A fastener adapted to be attached to a sheet-shaped member, so that the sheet-shaped member can be attached to a mounting member via the fastener, the fastener comprising: a tubular shank (1) adapted to be inserted into a mounting hole of the sheet-shaped member; at least one holding piece (10), extending outward from a corresponding partial portion of the periphery of a first end of the shank and substantially in the same plane as the shank first end; (1st end is left in Fig above, near “10”, 2nd end is at right, near “9”), a flange (9) extending outward from a second end of the shank, and {capable of} having an outer cross-dimension greater than an inner cross-dimension of the mounting hole of the sheet-shaped member; and at least one stud-engagement pawl (14) extending into the interior of the shank, wherein the shank {is capable of} has a length less than that of a stem of a stud fixed to a mounting member with which the fastener is to be engaged, so that the stud stem

protrudes from a first surface of the sheet-shaped member after the shank is inserted into the mounting hole, with the holding piece leading, until the holding piece is adjacent to the first surface and the flange is adjacent to an opposite second surface of the sheet-shaped member, and the stud is passed through the shank and the pawl is engaged with the stud, and wherein protrusion of the stud stem allows an auxiliary member to be mounted thereto (inherently capable of this function – no structure positively recited), wherein there are a plurality of the stud-engagement pawls, (two are shown in the figure) each extending radially inward from a position near the first end of the shank.

Re claim 4: A fastener adapted to be attached to a sheet-shaped member, so that the sheet-shaped member can be attached to a mounting member via the fastener, the fastener comprising: a tubular shank (1) adapted to be inserted into a mounting hole of the sheet-shaped member; at least one holding piece (10), extending outward from a corresponding partial portion of the periphery of a first end of the shank; (1st end is left in Fig above, near "10", 2nd end is at right, near "9"); a flange (9) extending outward from a second end of the shank, and {capable of} having an outer cross-dimension greater than an inner cross-dimension of the mounting hole of the sheet-shaped member; and at least one stud-engagement pawl (14) extending into the interior of the shank, wherein the shank {is capable of} has a length less than that of a stem of a stud fixed to a mounting member with which the fastener is to be engaged, so that the stud stem protrudes from a first surface of the sheet-shaped member after the shank is inserted into the mounting hole, with the holding piece leading, until the holding

Art Unit: 3677

piece is adjacent to the first surface and the flange is adjacent to an opposite second surface of the sheet-shaped member, and the stud is passed through the shank and the pawl is engaged with the stud, and wherein protrusion of the stud stem allows an auxiliary member to be mounted thereto (inherently capable of this function – no structure positively recited), and wherein after an auxiliary member is mounted to the stud stem, a wall of the auxiliary member is in contact with the holding piece and the first end of the shank to allow the wall of the auxiliary member to be located at a position apart from the mounting member by a given distance (inherently capable of this function – no structure positively recited).

Re claim 6. The fastener as defined as defined in claim 1, wherein the holding piece arms (10) have flat surfaces aligned with the first end of the shank.

10 is clearly shown as having flat surfaces {capable of} aligned with the first end of the shank

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7,9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizusawa USP 4435111 in view of Dixon et al. USP 4615655.

Re claim 7: As discussed above, Mizusawa was described as teaching all the elements except the assembly components including a mounting member having a stud

thereon, sheet shaped member, and auxiliary member. Examiner takes Official Notice that it is well-known in the fastener art to use a single stud of sufficient length and strength to connect multiple components, including panels, sheets, parts with holes (auxiliary members) in series so that an assembly is formed. This is evidenced by Dixon et al, who shows a fastener assembly including multiple sheet-shaped members, being held together with a fastener, with the sheet shaped member having a stud mounted through its hole and the stud protruding. The fastener shank would obviously be selected to have the proper length to correspond to the materials being connected. Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Mizusawa and Dixon before him at the time the invention was made, to modify Mizusawa as taught by Dixon to include using the fastener to connect parts serially, in order to obtain an assembly of separate parts that are removably connected. One would have been motivated to make such a combination because oftentimes separate parts need to be connected together to panels or sheets, for example, when connecting accessories to car doors or insulation panels, and the Mizusawa fastener would allow multiple parts to be "pre-connected" as a unit in advance for a final component to be added to the threaded end of the stud.

Re claim 9. The assembly of claim 7, wherein there are a plurality of pawls extending radially inward from positions adjacent to the opposite end of the shank. Mizusawa shows multiple pawls 14 extending inwardly.

Re claim 10. The assembly of claim 7, wherein the stud is threaded and the wall of the auxiliary member is held between the opposite end of the shank and a nut on the

Art Unit: 3677

stud. Mizusawa shows a threaded stud, which would inevitably allow an auxiliary member and nut to be subsequently added.

Re claim 11. The assembly of claim 7, wherein there are a plurality of outwardly projecting spaced holding piece arms. Mizusawa shows multiple arms (corners of 10 at apexes)

Re claim 12. The assembly of claim 11, wherein the holding piece arms have flat surfaces aligned with the opposite end of the shank, and the wall of the auxiliary member is juxtaposed with the flat surfaces of the holding piece arms. Mizusawa shows arms with flat surfaces. An auxiliary piece added at the end of the stud opposite the stud mounting end would inevitably lay against the flat arm pieces.

Re claim 13. The assembly of claim 7, wherein the second side of the sheet-shaped member and the flange are in contact with the mounting member. The second side of a sheet shaped member and flange would inevitably contact the mounting member if that were the order they were mounted on the stud.

Response to Arguments

5. Applicant's arguments with respect to all claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

Art Unit: 3677

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

8. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine W. Mitchell whose telephone number is 571-272-7069. The examiner can normally be reached on Mon - Thurs 10 AM - 8 PM.

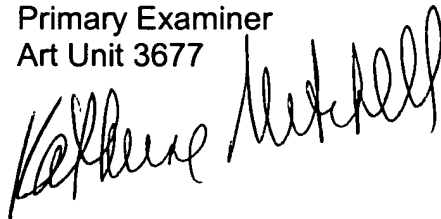
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3677

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kwm
Pearl Harbor Day, 2005

Katherine W Mitchell
Primary Examiner
Art Unit 3677

A handwritten signature in black ink, appearing to read "Katherine W Mitchell", written over the printed name and title.